DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	MUNN POND	Lake Area (ha):	17.40
Town:	ERROL	Maximum depth (m):	10.9
County:	Coos	Mean depth (m):	6.1
River Basin:	Androscoggin	Volume (m^3):	1069000
Latitude:	44°43'54" N	Relative depth:	2.3
Longitude:	71°11'24" W	Shore configuration:	1.08
Elevation (ft):	1415	Areal water load (m/yr):	5.14
Shore length (m):	1600	Flushing rate (yr^{-1}):	0.80
Watershed area (ha):	176.1	P retention coeff.:	0.65
% watershed ponded:	0.0	Lake type:	natural w/dam

BIOLOGICAL:			11 August 1999
DOM. PHYTOPLANKTON (% TOTAL)	#1		SYNURA 65%
	#2		ASTERIONELLA 20%
	#3		TABELLARIA 10%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			8.77
DOM. ZOOPLANKTON (% TOTAL)	#1		KERATELLA 25%
	#2		GASTROPUS 15%
	#3		KELLICOTTIA 12%
ROTIFERS/LITER			140
MICROCRUSTACEA/LITER			47
ZOOPLANKTON ABUNDANCE (#/L)			191
VASCULAR PLANT ABUNDANCE			Sparse
SECCHI DISK TRANSPARENCY (m)			3.9
BOTTOM DISSOLVED OXYGEN (mg/L)			1.0
BACTERIA (E. coli, #/100 ml)	#1		
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m)	:	3.7
Hypolimnion volume (m^3)	:	198500
Anoxic volume (m^3)	:	198500

CHEMICAL:

Lake: MUNN POND
Town: ERROL

			11 August 1999		
DEPTH (m)			2.0	5.0	9.0
pH (units)			6.8	6.7	6.3
A.N.C. (Alkalinity)			7.0	6.7	11.2
NITRATE NITROGEN			< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS			0.004	0.005	0.017
CONDUCTIVITY (μmhos/cm)			28.2	27.3	34.4
APPARENT COLOR (cpu)			23	28	41
MAGNESIUM			3.61		
CALCIUM			3.3		
SODIUM			1.4		
POTASSIUM			2.21		
CHLORIDE			< 2		< 2
SULFATE			3		2
TN : TP					
CALCITE SATURATION INDEX			2.1		

All results in mg/L unless indicated otherwise

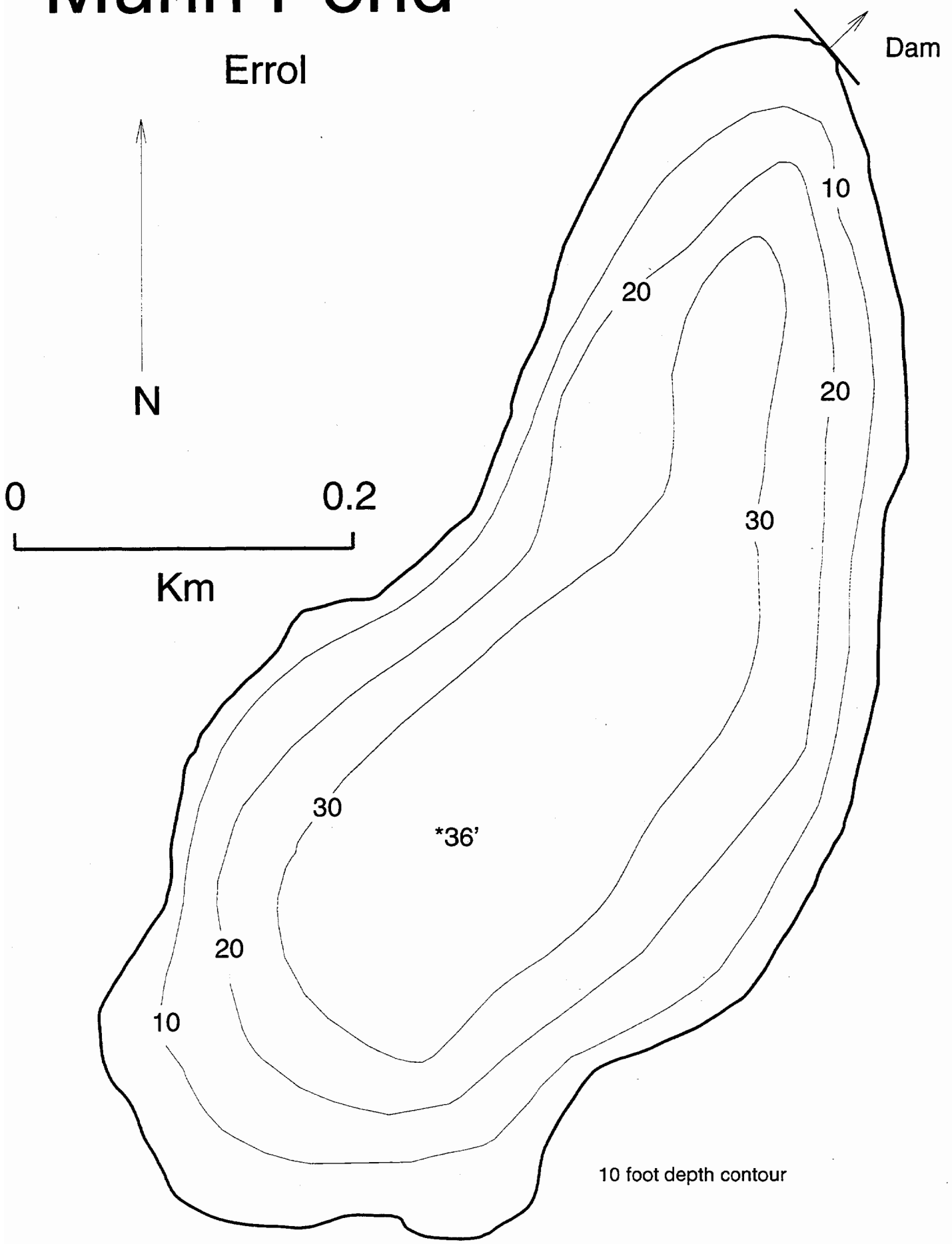
TROPHIC CLASSIFICATION: 1999

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
6	2	0	2	10	Meso.

COMMENTS:

1. Munn Pond was sampled several times in the 1980s during the spring as part of the remote pond acid rain study. ANC and pH values were similar to the above 1999 values. No trends were observed.
2. Munn Pond was not sampled during the winter.
3. Essentially the entire hypolimnion was devoid of dissolved oxygen.
4. This is a remote pond; access was difficult.

Munn Pond



FIELD DATA SHEET

LAKE: MUNN POND
DATE: 08/11/1999

TOWN: ERROL
WEATHER: SUNNY, BREEZY

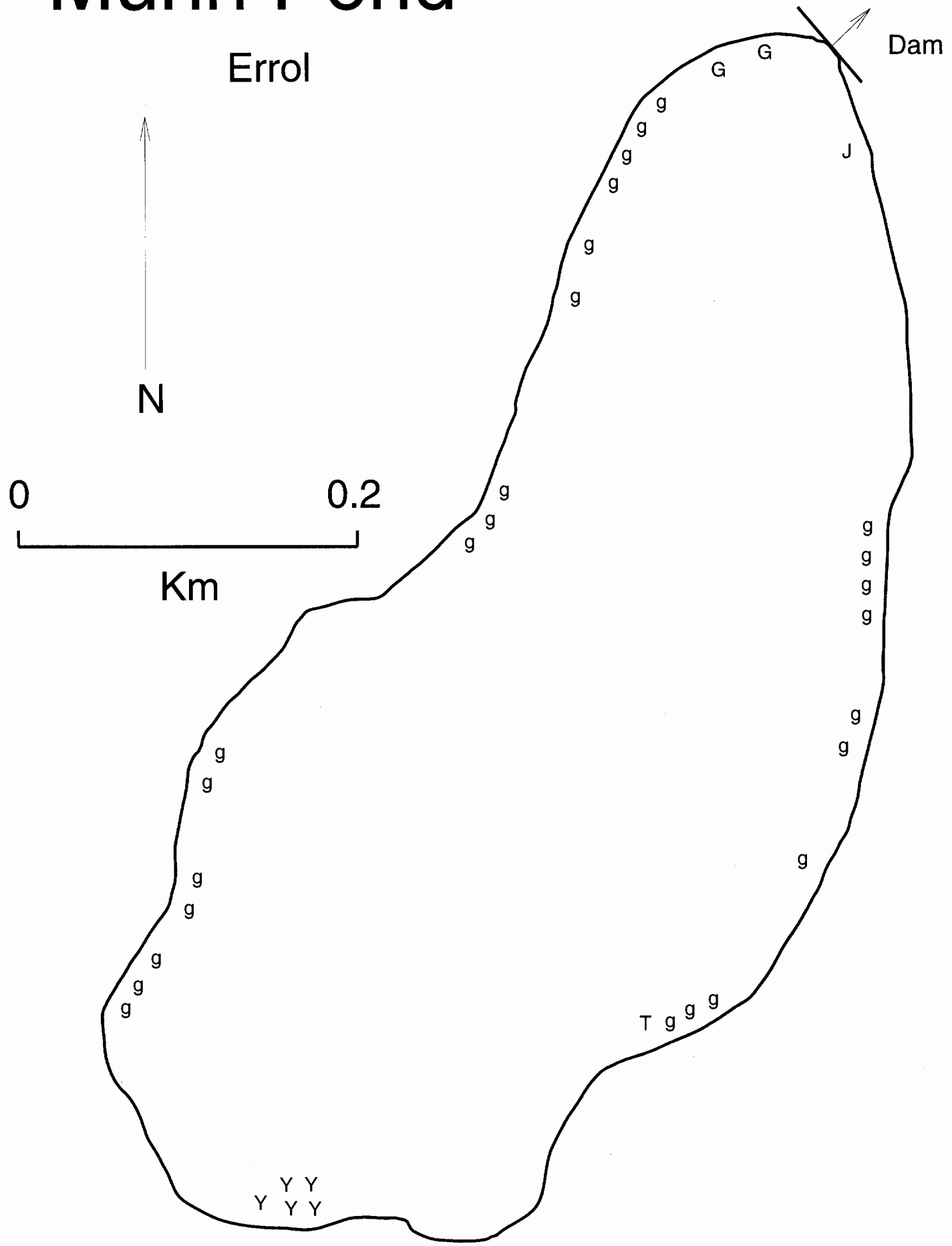
	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	20.6	9.0	100 %
	1.0	19.8	9.1	100 %
	2.0	19.7	9.2	100 %
	3.0	19.5	9.1	99 %
	4.0	15.0	13.5	134 %
	5.0	10.5	13.8	124 %
	6.0	8.1	6.2	53 %
	7.0	6.5	0.7	6 %
	8.0	6.0	0.8	6 %
	9.0	5.8	0.9	7 %
	10.0	5.7	0.9	7 %
	10.5	5.7	1.0	8 %

SECCHI DISK (m): 3.9
BOTTOM DEPTH (m): 10.5
TIME: 1146

COMMENTS:

*Dissolved oxygen values are in mg/L

Munn Pond



AQUATIC PLANT SURVEY

LAKE: MUNN POND TOWN: ERROL DATE: 08/11/1999

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
T	Typha	Cattail	Sparse
g	Myrica gale	Sweet gale	Sparse
J	Juncus effusus	Soft rush	Sparse
G	Gramineae	Grass family	Sparse
Y	Nuphar	Yellow water lily	Sparse

OVERALL ABUNDANCE: Sparse

GENERAL OBSERVATIONS:

1. Two loons observed.
2. Logging was occurring within the watershed.